

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

REMARKS

Reconsideration is respectfully requested.

Entry of the above amendments is courteously requested in order to place all claims in this application in allowable condition and/or to place the non-allowed claims in better condition for consideration on appeal.

Claims 1 through 13, 15 through 18, 20 through 27, 31, 34 and 35 remain in this application. Claims 14, 19, 28 through 30, 32 and 33 have been cancelled. No claims have been withdrawn or added.

The Examiner's rejections will be considered in the order of their occurrence in the Office Action.

Paragraphs 1 through 29 of the Office Action

Claims 1 through 6, 8 through 13, 15 through 18, 20, 21, 23 through 27, 34 and 35 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Gettemy and Cheng.

Claim 7 has been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Gettemy, Cheng and Kwon.

Claim 22 been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Gettemy, Cheng and Petty.

Claims 31 has been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Gettemy, Cheng and Kim.

Turning first to the "Response to Arguments" in the final Office Action, it is contended that:

31. The Applicants argue that "there are no 'steps to alleviate such a fault' that can be taken by a user, other than take the PDA to a repair facility. It is therefore"

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

32. In response the Examiner respectfully submits that though this argument is incomplete it will attempted to be answered. Gettemy further teaches, in column 1, lines 47-52, the user being provided with a screen message indicating that a battery recharge or replacement is needed (such as through use of the cradle with associated electrical connections [260] (see column 6, lines 16-24 and figure 4). Charging a PDA is clearly not a action that would require a "repair facility".

The undersigned apologizes for the apparent lack of a conclusion to the statements referenced in the remarks of the previous response.

However, it is submitted that the "Response to Arguments" in the final Office Action fails to address the significant point made in the previous response regarding the apparent pointlessness of attempting to modify the Gettemy system in the manner proposed in the rejection of the Office Action. As previously noted (and further addressed below), the Gettemy system is directed to selecting a display mode in a personal digital assistant (PDA) for enhancing battery life in the PDA, and the Cheng system addresses the troubleshooting of problems in operation between a computer system and a separate monitor. See, for example, the "Background of the Invention" portion of the Cheng patent at col. 1, lines 21 through 28, which states:

However, in most of the situations where the monitor displays nothing when the computer system is powered on, the monitor itself is in very good condition for display and the problem is that the monitor is not properly plugged in or connected to the computer system. In such a case, returning the monitor to the supplier is not only a waste of time and money for both the supplier and the consumer, but it also damages to the business reputation of the supplier.

Thus, the Cheng system addresses problems in the connection or interface between the computer system and the monitor (and how to possibly fix them), and one of ordinary skill in the art would recognize that a user of the Gettemy PDA would not encounter these problems, as the Gettemy PDA (as would any "portable" digital assistant) incorporates the display with no ability to make the changes or corrections of the Cheng system. This raises the significant question of why would one of ordinary skill in the art be

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

motivated to modify a system (such as the PDA of the Gettemy system) to solve a problem that does not exist? In other words, if the problems addressed by Cheng originate from the need to connect a separate monitor to a computer system, why would one of ordinary skill in the art be motivated to apply this "solution" to the Gettemy system in which it is impossible for the user to connect the display to the processing circuitry, as these elements are integrated together in the PDA housing.

It is not understood how the reference in the final Office Action to the portion of the Gettemy patent regarding battery recharge or replacement has any bearing on this point. The fact that any attempt to modify the Gettemy PDA with the selected elements of Cheng would be pointless because of the integration of the display and the processor together in the PDA is not changed by any ability to recharge or replace the battery of Gettemy—Cheng (and the elements of claim 1) are not directed to battery recharge or replacement, and certainly Cheng does not suggest that the problems in the display could be remedied by recharging or replacing the battery.

It is noted that the one of the requirements of a *prima facie* case of obviousness is that there be a reasonable expectation of success, as stated in MPEP §2143, where it states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It is submitted that one of ordinary skill in the art, making the allegedly obvious modification of Gettemy with Cheng, would not have a reasonable expectation of success since a user would not be able to implement the steps that are suggested by the Cheng system.

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

It is further alleged in the "Response to Arguments" that (emphasis added):

33. The Applicants argue the combination of the Gettemy and Cheng references.

34. In response the Examiner respectfully submits that Gettemy and Cheng teach similar systems that supply a user with an on screen indication of a fault condition that further provides the user with an idea of how to go about fixing the fault. Both furthermore help the user alleviate a fault by telling the user to plug the device in (see column 1, lines 47-52 of Gettemy and column 2, lines 43 through column 3, line 21 of Cheng).

Despite this attempt to show a parallel between the Gettemy and Cheng systems, what is left unsaid is that while the referenced portion of the Gettemy patent appears to be directed to restoring power to the PDA, the referenced portion of the Cheng patent is directed to establishing or restoring a signal from the CPU/video card to the monitor—again, something that cannot be done on the Gettemy PDA. Clearly, these patents do not propose the same "solution" despite the effort to make the solutions seem the same.

The Response to Arguments further states:

35. The Applicants argue that Cheng does not show a "graphical depiction which illustrates said solution".

36. In response the Examiner respectfully submits that a message displayed to a user on a computer screen (CRT) is a "graphical depiction" which provides a user with a solution (see column 2, lines 43 through column 3, line 21).

It is submitted that one of ordinary skill in the art would not recognize that the text displayed by the monitor of the Cheng patent is a "*graphical* depiction which *illustrates* said solution". It is submitted that the position taken in the Office Action simply ignores the literal requirements of the words "graphical" and "illustrates" in the claims.

In greater detail, and as previously noted, claim 1 requires "detecting a fault condition in a connection on a display device" and "determining a

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

solution for correcting said fault condition in the connection on the display device”.

It is conceded in the rejection of the Office Action that:

Gettemy, however, doesn't explicitly teach the fault condition being a fault in a connection and completely eliminating the fault condition in the connection.

It is then contended in the Office Action that:

Cheng teaches a system for providing the user with trouble-shooting help via a sequence of steps to help alleviate the problems (see column 1, lines 38-62 and column 2, lines 56-59), but further teaches providing trouble-shooting help to a user for issues related to the connection status of the monitor and possible methods to remove such problems (see column 1, lines 22-25, column 2, lines 43-59, and column 3, lines 18-21).

It is further contended in the rejection of the Office Action that (emphasis added):

It would have been obvious to one of ordinary skill in the art, having the teachings of Gettemy and Cheng before him at the time the invention was made to modify user assistance program of Gettemy to include the fault conditions relating to connection status and corresponding steps to alleviate such a fault. One would have been motivated to make such a combination because this aids a user in determining a fault condition for a monitor and providing support for eliminating the fault.

Initially, it is noted that a search of the Gettemy patent does not reveal any mention of any “user assistance program”, and thus the reference to such an aspect of the Gettemy patent is mistaken. Further, as noted below, the Gettemy system and the Gettemy patent is not concerned in the least with a fault condition in any connection for a display. It is noted that, and one of ordinary skill in the art recognizes, the personal digital assistant (PDA) of the Gettemy system employs a completely integrated system in which the display is integral with the housing and the other components of the PDA, and thus there is no connection that needs to be made by the user, or that can be fixed by the user. Thus, there are no “steps to alleviate such a fault”

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

that can be taken by a user, other than take the Gettemy PDA to a repair facility to fix problems with the display with the PDA.

More specifically, it is noted that the Gettemy patent is entitled "METHOD AND APPARATUS FOR USER SELECTABLE DISPLAY MODE FOR INTELLIGENTLY ENHANCING BATTERY LIFE ", and is not surprisingly directed to increasing the duration of a charge on a battery for a portable device, such as a personal digital assistant (PDA). This is made clear in the Gettemy patent by the statement of the problem being addressed, for example, at col. 1, lines 32 through 46 (emphasis added):

These portable electronic devices, such as PDAs, are often battery powered. Some portable electronic devices utilize rechargeable batteries and others use cells that need to be replaced after some limited period of use. As portable electronic devices become more complex electronically, their power consumption rates have also increased. Because they have limited battery energy, some PDAs and other electronic devices, such as cell phone, electronic pagers, etc., have relatively short operational periods between which battery replacements or recharging is required. With respect to rechargeable PDAs, cell phones, electronic pagers, etc., they typically have little more than a day of stored battery energy before they need to be recharged. Therefore, it would be desirable to provide an electronic device having a screen that functioned in a way to enhance the device's battery life.

Gettemy also sets forth the problem addressed at col. 1, lines 57 through 63 (emphasis added):

Some color flat panel displays utilize a back lighting element, such as a cold cathode fluorescent (CCF) tube. These elements consume a relatively large amount of energy from a battery operated device. It would be desirable to provide an electronic device that offered a color display but also managed the device's battery life in an intelligent manner.

Thus, the system presented in the Gettemy patent is clearly directed to the problem of prolonging the life of the charge on a battery. The system presented in the Gettemy patent is thus also directed to solving this problem, as is stated in the "Summary of the Invention" at col. 1, line 66 through col. 2, line 9 (emphasis added):

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

Accordingly, embodiments of the present invention provide an electronic device, e.g., a cell phone, PDA, electronic pager, etc., having a screen also that functions in a way to enhance the device's battery life. Embodiments also provide an electronic device having a screen that also enhances and manages the device's battery life in an intelligent manner. Embodiments also provide an electronic device that offers a multi-mode color display that also manages the device's battery life in an intelligent manner. The present invention provides these advantages and others not specifically mentioned above but described in the sections to follow.

A method and system are described herein for enhancing the life of a battery within a portable or otherwise battery operated electronic device. The method and system provide user selectable display modes, e.g., from color to monochrome, that can be changed in order to enhance the life of the battery.

The description of the system is also directed to solving the problem of enhancing battery life by providing the device with various display modes, such as is set forth in col. 7, lines 27 through 479 (emphasis added):

In accordance with embodiments of the present invention, the display mode of the multi-mode display unit 105 can be altered in response to detected low battery life. By changing display modes in this fashion, the remaining battery life of the portable electronic device can be extended. Although the PDA device 100 has been illustrated as one example, it is appreciated that any of a number of portable or otherwise battery powered electronic devices can be used within the spirit and scope of the present invention, e.g., electronic pagers, cell phones, computer systems, PDAs, etc., can utilize the intelligent battery enhancement processes of the present invention. In one embodiment, any display mode changes are performed in response to a user selection where the user is cued to make a selection after a low battery level is detected by the electronic device. In another embodiment, all changes are performed automatically by the electronic device without requiring a user selection. In yet another mode, a user selection is requested, but if the battery level reaches a critical low level and the user has not yet made a low power selection, then the electronic device automatically changes to a low power display mode.

Thus, the Gettemy patent is solely concerned with power saving to prolong the battery life, and Gettemy says nothing about making any adjustments to the connection of the display, as all of the modifications proposed by the Gettemy patent are made on a software or electronic basis. The Gettemy patent is not concerned with any "fault condition" or "connection status" of

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

the display of the PDA, as the Gettemy system only changes the nature of the signals (color, monochrome, backlit, etc.) being sent to the display of the PDA, and not whether the connection itself is faulty.

In contrast, the Cheng patent is entitled "INTERACTIVE MONITOR TROUBLE-SHOOTING DEVICE", and is thus directed to "a device which provides interactive communication with the computer user to detect trouble in installing the monitor". It is submitted that one of ordinary skill in the art would find an application of the Cheng to the Gettemy system to be strange, as (which was noted earlier in this discussion) the PDA disclosed in Gettemy does not permit the user to make or fix any connections for the display, so showing the user "steps to alleviate such a fault" do not make sense to one of ordinary skill in the art, since one of ordinary skill in the art would recognize that such access is not available to the user, and would only be provided to a qualified repairperson .

More specifically, in the referenced portion of the Cheng patent at col. 1, lines 38 through 62, which states (emphasis added):

The principal object of the present invention is to provide an interactive monitor trouble-shooting device which displays the possible trouble-shooting procedure to help the consumer solve the problem of no screen display of the monitor upon powering on the computer system.

It is another object of the present invention to provide a monitor self-testing device which displays a background on the monitor screen with the three elementary colors to detect if any of the three elementary colors is incorrect or missing.

In accordance with the present invention, there is provided an interactive monitor trouble-shooting device comprising a micro-processor based control unit which detects the horizontal synchronization signal and the vertical synchronization signal from the video card of a computer. If no such signals are detected, the control unit displays a series of trouble-shooting steps to be followed by the monitor user for fixing the problem of receiving no such synchronization signals. The trouble-shooting steps may also be displayed in such a manner to test the color display function of the monitor, wherein the monitor screen is divided into at least three sections or areas, each having a background color of one of the three

Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

elementary colors. The control unit also allows the monitor to enter a power saving mode when such synchronization signals are cut off during normal operation of the monitor.

Cheng further states at coil. 2, lines 56 through 59 (emphasis added):

The trouble-shooting display may comprise any information that the user needs to know to confirm that the monitor is not receiving signal from the computer system. The trouble-shooting display may also contain a series of steps instructing the user to investigate possible problems that the monitor may encounter and possible methods to remove such problems.

While these problems may be addressed in a personal computer system with a monitor separate from the central CPU case, one of ordinary skill in the art would recognize that the corrections addressed in Cheng would not apply to the PDA of Gettemy.

It should not be forgotten that claim 1 also requires "providing a *graphical* depiction which illustrates said solution to said fault condition in the connection on the display device", and it is submitted that the Cheng patent does not disclose this aspect of the invention. The disclosure shows verbal instructions, but fails to disclose graphical depictions.

It is therefore submitted that one of ordinary skill in the art would not find the combination of elements of the Gettemy and Cheng patents set forth in the rejection of the Office Action to be obvious, and would not lead one skilled in the art to the applicant's invention as required by claims 1, 8, 13, 20 and 26. Further, claims 2 and 4 through 7, which depend from claim 1, claim 3, which depends from claim 2, claims 9 through 12 and 31, which depend from claim 8, claims 15, 17 and 18, which depend from claim 13 and claims 21 through 25 and 27, which depend from claim 20 also include the requirements discussed above and therefore are also submitted to be in condition for allowance.

Withdrawal of the §103(a) rejections of claims 1 through 13, 15 through 18, 20 through 27 and 31 is therefore respectfully requested.

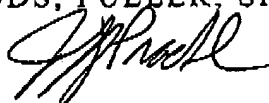
Appln. No. 10/014,308
Amendment dated March 12, 2007
Reply to Office Action mailed January 12, 2007

CONCLUSION

In light of the foregoing amendments and remarks, early reconsideration and allowance of this application are most courteously solicited.

Respectfully submitted,

WOODS, FULLER, SHULTZ & SMITH P.C.



Date: MARCH 12, 2007

Jeffrey A. Proehl (Reg. No. 35,987)
Customer No. 40,158
P.O. Box 5027
Sioux Falls, SD 57117-5027
(605)336-3890 FAX (605)339-3357